

20. The device of Claim 18, wherein said roller ball is located at the upper right portion of the device.

21. The device of Claim 18, further comprising a scroll wheel disposed between the keys.

### REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed on March 21, 2002. Allowance of the application and presently pending claims, as amended, are respectfully requested. Upon entry of the amendments in this response, claims 12-17 are cancelled without prejudice, waiver or disclaimer, and claims 18-21 are added. These additions are specifically described above. It is believed that the additions add no new matter to the present application.

### Drawings Objections

The drawings have been objected to under 37 CFR 1.83(a) for not showing the claimed element "scroll wheel" in claim 16. In response to this objection, Figure 1 of the drawings has been amended to show a "scroll wheel" to Figure 1. This Response contains a second amendment to the drawings (to Figure 2) for newly added claims 18-21. The amendment adds no new matter to the present application.

A marked-up copy of the originally filed drawings showing both of these amendments is included with this Response. These amendments were made in red ink and highlighted by Applicant's use of asterisks. The red ink would not be distinguishable as this Response is filed by facsimile. However, upon the Examiner's request, Applicant

will forward by U.S. Mail the amendment showing the red ink. Formal drawings will be submitted upon receipt of the Notice of Allowability.

**Claim Rejections - 35 U.S.C. § 102**

Claims 12 and 13 have been rejected under 35 U.S.C. 102(b) as being anticipated by *Bidiville et al.* (U.S. Pat. No 5,578,817) (hereinafter referred to as "*Bidiville*"). Without addressing the merits of this objection, claims 12 and 13 have been canceled without prejudice, waiver or disclaimer. Therefore, the rejection to claims 12 and 13 have been rendered moot.

**Claim Rejections - 35 U.S.C. § 103**

Claims 14 and 15 have been rejected under 35 U.S.C. § 103(a), as being unpatentable over *Bidiville*. Claim 16 has been rejected under 35 U.S.C. § 103(a), as unpatentable over *Bidiville* and further in view of *Adams et al* (U.S. Pat. No. 6,031,518) (hereinafter referred to as "*Adams*"). Claim 17 has been rejected under 35 U.S.C. § 103(a), as unpatentable over *Bidiville* and further in view of *Harding et al* (U.S. Pat. No. 6,184,869) (hereinafter referred to as *Harding*).

Claims 12-15 and 17 have also been rejected under 35 U.S.C. § 103(a), as unpatentable over *Koh et al.* (U.S. Pat. No. 5,122,654) (hereinafter referred to as *Koh*) in view of *Harding*.

Without addressing the merits of these objections, claims 12-17 have been canceled without prejudice, waiver or disclaimer. Therefore, the rejection of claims 12-17 have been rendered moot.

**NEWLY ADDED CLAIMS**

As identified above, claims 18-21 have been added into the application through this response.

**Support for Newly Added Claims**

Applicant respectfully asserts that the newly added claims add no new matter to the present application. Support for the elements in the new claims can be found in the specification, drawings or original claims, as explained below.

**Claim 18**

The specification provides support for the element "convex palm surface to fit a palm of a hand." (p. 12, lines 13-15; p. 14, lines 18-19; and Figures 1 and 3). The limitation "ulnar fingers wrapping around and under the body to support and hold the device in said hand" is also disclosed in the specification. (p. 15, lines 2-5 and Figure 2, as amended by this response).

Support for "a substantially flat underside" is likewise found in the specification. (p. 14, lines 10-12 and Figures 1-4).

The specification further provides support for the claimed element "roller ball," the position of the roller ball at the "upper left portion of the body," and the use of the thumb to actuate the roller ball. (p.12, lines 8-10, 21-23; p. 13, lines 1-5, 9-12 and Figures 1-4);

The specification also provides support for the claimed element "at least one key occupying the forward side of the body." (p. 13, lines 13-16 and Figures 1-4).

Finally, support for a "communicator" is likewise found in the specification. (p. 14, lines 3-6).

**Claim 19**

Support for the element "a second key" is found in the specification. (p. 13, lines 13-16 and Figures 1-4). Also as noted above in connection with Claim 18, the claimed limitation "the ulnar fingers of said hand wrap around the side of the body opposite the ball and under the body to hold the device in said hand," disclosed in the specification. (p. 15, lines 2-5, and Figure 2, as amended by this response).

**Claim 20**

Support for the claimed element "roller ball being exposed on the upper left side of the body" is found in the specifications. (p. 12, lines 21-23 and p. 13, lines 1-12). The specification also discloses the mirror image of the claimed invention (i.e., roller ball being exposed on the upper right side, as claimed). (p. 12, lines 8-10; p. 13, lines 3-5 and Figures 3 and 4).

**Claim 21**

Support for the claimed element "scroll wheel" is found in the specification. (p. 17, lines 21-22 and Figure 1, as amended by this response).

**New Claims are Patentable over the Prior Art**

Applicant respectfully submits that the new claims (Claims 18-21) describe an invention novel and unobvious in view of the prior art of record.

Applicant respectfully submits that the element "a convex palm surface to fit a palm of a hand while the ulnar fingers of said hand wrap around and under the body to hold the device in said hand" of Applicant's claimed invention is not disclosed, taught or suggested in the prior art of record.

First, neither *Koh* nor *Harding* disclose a convex palm surface to fit a palm, as claimed. (*Koh*, figure 3 and *Harding*, figures 3 and 7).

In *Adams*, the "ring finger" (the first ulnar finger) rests on the top of the device. (*Adams*, Col. 5, lines 15-20; Col. 8, lines 12-15 and figure 7, numeral 120). Also in *Adams*, the "little finger" (the second ulnar finger) rests on the side of the device. (*Adams*, Col. 8, lines 11-12 and figure 7, numeral 124). Furthermore, *Adams* expressly states that the device of *Adams* rests on a support surface while being used. (*Adams*, Col. 4, lines 55-61). The disclosures and teachings of *Adams* directly contradict the claimed invention, in which the ulnar fingers "wrap around and under the device." (p. 15, lines 2-5 and figure 2).

*Bidville* and *Koh* disclose devices in which both ulnar fingers rest on the top of the device. (*Bidville*, figures 20A and 20B and *Koh*, Col. 3, lines 10-17, 20-22 and lines 23-27 and figures 1 and 4). Also, in *Bidville* and *Koh*, during operation of the devices the user's hand rests on the device, which naturally places downward pressure on the

device, hence requiring a support surface. (*Bidiville*, Col. 25, lines 9-11 and figures 20A-E and *Koh*, Col. 3, lines 20-22 and Col. 4, lines 10-12).

In the claimed invention, however, the ulnar fingers wrap around and under the body to hold the device in the user's hand. (p. 15, lines 2-5 and Figure 2, as amended by this response). This limitation, which is disclosed and described in the specifications, is critical to the claimed invention as it permits the claimed invention to be operated off of a support surface. (p. 15, lines 2-5 and Figure 2, as amended by this response).

Applicant respectfully submits that the claimed element "a roller ball rotatably mounted at the upper left portion of the body and slightly exposed above the body to be actuated by the thumb of a hand while the ulnar fingers of said hand wrap around the side of the body and under the body to hold the device in said hand" is not disclosed, taught or suggested in the prior art of record.

The roller balls in *Koh* and *Bidiville* are not located at the upper portion of the body, but at the mid-points. (*Koh*, Col. 3, lines 3-5 and *Bidiville*, Col. 25, lines 5-11 and figures 20A-E). In the configurations taught and disclosed in *Bidiville* and *Koh*, when the thumb is on the ball and the fingers rest above the buttons, the ulnar fingers are oriented toward the front of the device. (*Bidiville*, Col. 25, lines 5-11 and figure 20B and *Koh*, Col. 3, lines 11-17 and figures 1, 2a and 4). This differs from the claimed invention in which the roller ball and keys orient the ulnar fingers to "wrap around the side and under" the device. (p. 13, line 23; p. 14, lines 1-2 15, lines 2-5 and Figure 2). Moreover, this difference is critical to the operation of the claimed invention as it permits the ulnar fingers to comfortably hold the claimed invention in the hand while the thumb actuates

the roller ball, so that the claimed invention can be used off of a support surface. (p. 14, lines 13-23; p. 15, lines 2-5 and Figure 2).

Applicant respectfully submits that the claimed element "at least one key mounted at the front portion of the body to be activated by a finger of a hand while the thumb of said hand actuates the roller ball and the ulnar fingers of said hand wrap around the side of the body and under the body to hold the device in said hand" is not disclosed, taught or suggested in the prior art of record.

As already noted, in the configurations taught and disclosed in *Bidiville* and *Koh*, if the user's fingers are on the keys, and the thumb on the ball, the ulnar fingers are not oriented to "wrap around the side and under the device" as claimed in the current invention. (p.15, lines 2-5 and Figures 1-4). Instead, in *Bidiville* and *Koh*, the ulnar fingers are oriented toward the front of those devices. (*Bidiville*, figures 20A-E and *Koh*, figures 1, 2a and 4).

With the configuration of the claimed invention, the keys orient the user's thumb with the roller ball and the ulnar fingers with the side of the device. (p. 13, line 23; p. 14, lines 1-2 15, lines 2-5 and Figure 2, as amended by this response). This allows the ulnar fingers to wrap under the body so the claimed invention can be used off of a support surface. (p. 15, lines 2-5 and Figure 2, as amended by this response). This configuration is also critical to the operation of the claimed invention as it permits the user to also hold the device off of a support surface by applying "slight pressure from the tips" of his or her first two fingers, as disclosed in the specification. (p. 15, lines 5-9)

Furthermore, *Koh* and *Harding* disclose keys on the top of those devices, (*Harding*, figures 2 and 6 and *Koh*, figure 1, 2a and 4). Activating those keys requires downward pressure, which contradicts the claimed invention and shows that there was no intent that the devices of the prior art of record to be used in any other manner than on a support surface.

The keys of the present invention can be activated by inward pressure, as disclosed in the specification, instead of downward pressure. (p. 12, lines 21-23 and p. 15, lines 10-15). Use of inward pressure, as opposed to downward pressure, allows the keys to be activated while the device is being hand-held (i.e., being used off of a support surface). (p. 15, lines 9-12). The configuration of the claimed invention is not merely a design choice, but is critical to the operation of the claimed invention.

Applicant respectfully submits that each of the newly added claims is patentable over the prior art of record.


Finally, Applicant calls to the Examiner's attention Section 707.07(j) of the Manual of Patent Examining Procedure, and respectfully requests examination of this application consistent therewith. Applicant is the sole inventor of the claimed invention and is prosecuting this application *pro se*.



**CONCLUSION**

It is respectfully submitted that claims 18-21 embody a distinct advance in the art not rendered obvious or otherwise unpatentable by the cited art of record. Accordingly, an early Notice of Allowability would be appreciated and is respectfully solicited. Should the Examiner have any questions regarding this response, he is invited to telephone the Applicant at the telephone number listed below.

Respectfully submitted this 3<sup>rd</sup> day of May, 2002.

  
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